

[BUMP PROCESS FOR FLIP CHIP PACKAGE]

Abstract

A bump process for fabricating bumps and an underfill layer on the active surface of a chip inside a flip chip package is disclosed. An adhesive layer is formed on each of the die pads of the chip. Thereafter, a plurality of bump balls are scattered on the active surface of the chip. The bump balls are vibrated such that only one bump ball is attached to the adhesive layer of each die pad. After removing the un-attached bump balls from the active surface of the chip, an underfill material is applied on the active surface of the chip to encapsulate the bump balls but expose their top surfaces. Thus, the bump process is capable of increasing the reliability of the flip chip package and lower the overall fabrication cost of the flip chip package.